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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

AGUSTIN, PETER VINCENT

ART UNIT

PAPER NUMBER

2652

DATE MAILED: 03/31/2004

546

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/812,980

Applicant(s)

CHOI, IN HO

Examiner

Peter Vincent Agustin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 and 20 is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The disclosure is objected to because elements 504 & 507 on figure 5 have been described/labeled interchangeably throughout pages 12-14 (second embodiment of the invention) as "tangential coil" and "focusing coil", respectively, which should have been --focusing coil-- and --tangential coil--, respectively. The specification and the claims do not appear to show any evidence that the applicant intends these two elements to be switched. Therefore, this has been perceived as typographical errors, and the specification is objected to due to the following minor informalities:

Page 12, line 23: "tangential coil 504" should be --tangential coil 507--.

Page 12, line 24: "focusing coil 507" should be --focusing coil 504--.

Page 13, line 4: "tangential coil" should be --focusing coil--.

Page 13, lines 6, 23 & 25; page 14, line 3: "focusing" should be --tangential--.

Page 14, line 5: "tangential" should be --focusing--.

Page 14, line 8: "tangential tilting" should be --focusing--.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. Claims 1-11 & 13-19 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which were not described in the specification in such a way as to enable one skilled in the art to which they pertain, or with which they are most nearly connected, to make and/or use the invention.

In regard to claim 1, there is no disclosure of how to make and use an actuator having a fixed body attached with a pair of first magnets and a coil serving to move the lens holder in a desired direction. It is not described how a magnet and a coil both attached to the same fixed body cause movement.

In regard to claim 9, there is no disclosure of how to make and use an actuator having a moving magnet system to conduct tracking and focusing operations and a moving coil system to conduct a tilt compensating operation.

In regard to claim 13, there is no disclosure of how to make and use an actuator having a first magnet means adapted to conduct a tilt compensation. Note that base claim 12 describes a first magnet means that conducts tracking and focusing operations. Likewise, in regard to claim 14, there is no disclosure of how to make and use an actuator having a first magnet means having magnet units for conducting tangential and radial tilt compensation.

In regard to claim 15, there is no disclosure of how to make and use an actuator having the claimed alternative operating condition of driving a second magnetic circuit unit for tilting operations when a first magnetic circuit unit is driven for tracking and focusing operations, and driving the second magnetic circuit unit for tracking and focusing operations when the first magnetic circuit unit is driven for tilting operations. This configuration appears to require switchable circuits, which are not shown in the specification. Furthermore, there is no disclosure

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of a moving coil system for radial and tangential tilt compensation and a moving magnet for tracking and focusing operations.

Claims 2-8, 10, 11 & 16-19 are rejected because these claims are dependent upon rejected base claims.

Allowable Subject Matter

5. Claims 12 & 20 allowed over the prior art of record.

6. The following is a statement of reasons for the indication of allowable subject matter:

The novelty of the present invention is the use of a combination of a "moving magnet" system and a "moving coil system" in order to avoid the use of an additional power source to achieve tilt compensation in addition to the main function (tracking and focusing), and to reduce the size and complexity of conventional optical pick-up actuators.

In regard to independent claim 12, no prior art of record alone or in combination discloses or suggests an optical pick-up actuator comprising a first magnet means operated by a moving coil system to conduct tracking and focusing operations, further in combination with a second magnet means operated by a moving magnet system to conduct a tilt compensating operation.

In regard to independent claim 20, no prior art of record alone or in combination discloses or suggests an optical pick-up actuator comprising: a moving part which includes a lens holder mounted with an object lens, a magnet and coils at an outer surface of said moving part; a fixed part which includes a magnet attached on a yoke and coils at an outer surface of said fixed part; and a plurality of supporting means; wherein said moving part and said fixed part have a configuration of a combination of a moving coil system and a moving magnet system.


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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent Agustin whose telephone number is (703) 305-8980. The examiner can normally be reached on Monday thru Friday 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PVA
03/22/2004



BRIAN E. MILLER
PRIMARY EXAMINER